

IN THE CLAIMS:

Please amend the claims as follows:

1-94. (Cancelled)

95. (New) A method of switching from a first sound signal coding mode to a second sound signal coding mode at the junction between a previous frame coded according to the first coding mode and a current frame coded according to the second coding mode, wherein the sound signal is filtered through a weighting filter to produce, in the current frame, a weighted signal, comprising:

calculating a zero-input response of the weighting filter;

windowing the zero-input response so that said zero-input response has an amplitude monotonically decreasing to zero after a predetermined time period; and

in the current frame, removing from the weighted signal the windowed zero-input response.

96. (New) A method of switching from a first sound signal coding mode to a second sound signal coding mode as defined in claim 95, wherein calculating a zero-input response of the weighting filter comprises calculating a zero-input response in the weighted domain.

97. (New) A method of switching from a first sound signal coding mode to a second sound signal coding mode as defined in claim 95, wherein the first coding mode is an ACELP coding mode and the second coding mode is a TCX coding mode.

98. (New) A method of switching from a first sound signal coding mode to a second sound signal coding mode as defined in claim 95, wherein windowing the zero-input response comprises truncating said zero-input response to the predetermined time period.

99. (New) A method of switching from a first sound signal coding mode to a second

sound signal coding mode as defined in claim 95, comprising, after the windowed zero-input response has been removed from the weighted signal, windowing the weighted signal into a TCX frame of predetermined duration.

100. (New) A method of switching from a first sound signal coding mode to a second sound signal coding mode as defined in claim 99, further comprising transforming into the frequency domain the weighted signal windowed into a TCX frame of predetermined duration.

101. (New) A method of switching from a first sound signal coding mode to a second sound signal coding mode as defined in claim 95, wherein the weighting filter is a perceptual weighting filter.

102. (New) A device for switching from a first sound signal coding mode to a second sound signal coding mode at the junction between a previous frame coded according to the first coding mode and a current frame coded according to the second coding mode, wherein the sound signal is filtered through a weighting filter to produce, in the current frame, a weighted signal, comprising:

- means for calculating a zero-input response of the weighting filter;

- means for windowing the zero-input response so that said zero-input response has an amplitude monotonically decreasing to zero after a predetermined time period; and

- means for removing, in the current frame, the windowed zero-input response from the weighted signal.

103. (New) A device for switching from a first sound signal coding mode to a second sound signal coding mode at the junction between a previous frame coded according to the first coding mode and a current frame coded according to the second coding mode, wherein the sound signal is filtered through a weighting filter to produce, in the current frame, a weighted signal, comprising:

- a calculator of a zero-input response of the weighting filter;

a window generator for windowing the zero-input response so that said zero-input response has an amplitude monotonically decreasing to zero after a predetermined time period; and

an adder for removing, in the current frame, the windowed zero-input response from the weighted signal.

104. (New) A device for switching from a first sound signal coding mode to a second sound signal coding mode as defined in claim 103, wherein the zero-input response calculator calculates a zero-input response in the weighted domain.

105. (New) A device for switching from a first sound signal coding mode to a second sound signal coding mode as defined in claim 103, wherein the first coding mode is an ACELP coding mode and the second coding mode is a TCX coding mode.

106. (New) A device for switching from a first sound signal coding mode to a second sound signal coding mode as defined in claim 103, wherein the window generator truncates the zero-input response to the predetermined time period.

107. (New) A device for switching from a first sound signal coding mode to a second sound signal coding mode as defined in claim 103, comprising another window generator for windowing, after the windowed zero-input response has been removed from the weighted signal, the weighted signal into a TCX frame of predetermined duration.

108. (New) A device for switching from a first sound signal coding mode to a second sound signal coding mode as defined in claim 107, further comprising a frequency transform module which, in operation, transforms in the frequency domain the weighted signal windowed into a TCX frame of predetermined duration.

109. (New) A device for switching from a first sound signal coding mode to a second sound signal coding mode as defined in claim 95, wherein the weighting filter is a perceptual weighting filter.

110. (New) A method for producing from a decoded target signal an overlap-add target signal in a current frame coded according to a first coding mode, comprising:

 windowing the decoded target signal of the current frame in a given window;

 skipping a left portion of the window;

 calculating a zero-input response of a weighting filter of the previous frame coded according to a second coding mode,

 windowing the zero-input response so that said zero-input response has an amplitude monotonically decreasing to zero after a predetermined time period; and

 adding the calculated zero-input response to the decoded target signal to reconstruct said overlap-add target signal.

111. (New) A method for producing an overlap-add target signal as defined in claim 110, comprising weighting the calculated zero-input response prior to windowing said calculated zero-input response.

112. (New) A method for producing an overlap-add target signal as defined in claim 111, wherein weighting the calculated zero-input response comprises perceptually weighting said calculated zero-input response.

113. (New) A method for producing an overlap-add target signal as defined in claim 110, comprising saving in a buffer a last portion of samples of the current frame.

114. (New) A method for producing an overlap-add target signal as defined in claim 110, wherein the windowed, calculated zero-input response has an amplitude monotonically decreasing to zero after 10 ms.

115. (New) A device for producing from a decoded target signal an overlap-add target signal in a current frame coded according to a first coding mode, comprising:

 means for windowing the decoded target signal of the current frame in a given window;

 means for skipping a left portion of the window;

means for calculating a zero-input response of a weighting filter of the previous frame coded according to a second coding mode,

means for windowing the zero-input response so that said zero-input response has an amplitude monotonically decreasing to zero after a predetermined time period; and

means for adding the calculated zero-input response to the decoded target signal to reconstruct said overlap-add target signal.

116. (New) A device for producing from a decoded target signal an overlap-add target signal in a current frame coded according to a first coding mode, comprising:

a first window generator for windowing the decoded target signal of the current frame in a given window;

means for skipping a left portion of the window;

a calculator of a zero-input response of a weighting filter of the previous frame coded according to a second coding mode,

a second window generator for windowing the zero-input response so that said zero-input response has an amplitude monotonically decreasing to zero after a predetermined time period; and

an adder for adding the calculated zero-input response to the decoded target signal to reconstruct said overlap-add target signal.

117. (New) A device for producing an overlap-add target signal as defined in claim 116, comprising a filter for weighting the calculated zero-input response prior to windowing said calculated zero-input response.

118. (New) A device for producing an overlap-add target signal as defined in claim 117, wherein the weighting filter is a perceptual weighting filter.

119. (New) A device for producing an overlap-add target signal as defined in claim 116, comprising a buffer for saving a last portion of samples of the current frame.

120. (New) A device for producing an overlap-add target signal as defined in claim 116,

wherein the windowed, calculated zero-input response has an amplitude monotonically decreasing to zero after 10 ms.